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EXAMINER

ANTHONY, J

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WILMINGTON, DE 19898

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DATE MAILED 01/15/91

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☒ This application has been examined ☐ Responsive to communication filed on \_\_\_\_\_ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), \_\_\_\_\_ days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

**Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948.                   |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449.                 | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474.     | 6. <input type="checkbox"/> _____  |

**Part II SUMMARY OF ACTION**

1. ☒ Claims 1-13 are pending in the application.  
Of the above, claims 1-6 are withdrawn from consideration.
2. ☐ Claims \_\_\_\_\_ have been cancelled.
3. ☐ Claims \_\_\_\_\_ are allowed.
4. ☒ Claims 7-13 are rejected.
5. ☐ Claims \_\_\_\_\_ are objected to.
6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed on \_\_\_\_\_, has been ☐ approved. ☐ disapproved (see explanation).
12. ☐ Acknowledgment is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received  
☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

EXAMINER'S ACTION

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DETAILED ACTION

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-6 are, drawn to a process of using a fire extinguishing composition, classified in Class 169, subclass 46.

II. Claims 7-13 are, drawn to a fire extinguishing composition, classified in Class 252, subclass 3.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP 806.05(h)). In the instant case the product as claimed can be used in a materially different process such as industrial cleaning or refrigeration.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification restriction for examination purposes as indicated is proper.

During a telephone conversation with Herbert M. Wolfson on 2/9/90 a provisional election was made with traverse to prosecute the invention of group II, claims 7-13. Affirmation of this election must be made by applicant in responding to this Office action. Claims 1-6 are withdrawn from further consideration by the Examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

2. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

3. Claims 7-9, 11, and 13 are rejected under 35 U.S.C. 103 as being unpatentable over Uchida et al. U.S. Patent Number 4,459,213 and optionally in view of Cohen U.S. Patent Number 3,080,430 and further optionally in view of Smits et al. U.S. Patent Number 4,954,119 with or without Cohen.

Uchida teaches fire extinguishing compositions comprising: 1) protein or protein decomposition products, 2) polyhydroxy compounds, and 3) halogenated hydrocarbons (35 to 90%), such as pentafluoroethane, tetrafluoroethane, chlorotetrafluoroethane, and halogenated propanes or propylenes. Particularly preferred halogenated hydrocarbons are those having 1 to 4 carbon atoms and a boiling point of -50 C to 150 C (column 2 line 41 to column 3 line 8). These compositions may be added to water to form an emulsion. Uchida's composition "differs" from applicant's composition in that applicant does not require the addition of Uchida's components 1) and 2). Uchida also does not have any particular example showing any of applicant's claimed halogenated propane species.

Cohen teaches fluorine containing compounds, particularly 3-chloro-1,1,2,2,-tetrafluoropropane and 3-bromo-1,1,2,2,-tetrafluoropropane. These compounds are taught to be useful as fire

extinguishing agents (column 2 lines 8-17). Although 3-chloro-1,1,2,2,-tetrafluoropropane is not exactly identical to any of applicant's claimed halogenated propane species, it is very close, and is thus deemed to be a homologue of applicant's compounds.

Smits teaches foaming systems for rigid urethane and isocyanurate foams. The first and second components, which are blowing agents, are halogenated propanes that read directly on applicant's claimed species. These compounds are taught to be inert and have low boiling points that cause some of them to be gases at room temperature ( column 4 lines 54-68). Such properties are known by those of ordinary skill in the art, to be useful properties for fire extinguishing agents (see the specifications of Uchida and Cohen as conformation of this fact).

Applicant's composition is deemed to be obvious over the compositions taught and suggested by Uchida. One of ordinary skill in the art could easily make a composition that is a subset of the compositions taught by Uchida. In addition, the use of the word, "comprising", in applicant's claims, opens them up to any additionally component. The fact that Uchida does not have any particular example to any of applicant's claimed halogenated propane species is noted, but is not deemed to render applicant's composition unobvious. One reason for this is that all of applicant's claimed halogenated propane species, fall within the Uchida's particularly preferred halogenated hydrocarbons having 1 to 4 carbon atoms and a boiling point of -50 C to 150 C (column 3 lines 2-8).

The Cohen reference is optionally combined with Uchida, to more clearly show that halogenated propanes, which are very similar to applicant's claimed halogenated propanes, are known to be used as fire extinguishing agents. In addition, applicant's have given no superior and unexpected results in regards to his particular species, to adequately dispute this obvious homologue rejection. Smits further points out that applicant's species are known to be useful as blowing agents, and have properties that are known to be useful for fire extinguishing purposes.

4. Claims 10 and 12 are rejected under 35 U.S.C. 103 as being unpatentable over Uchida et al. U.S. Patent Number 4,459,213 in view of either Rainaldi et al U.S. Patent Number 3,656,553 or Kung U.S. Patent Number 4,226,728 and optionally further in view of either Cohen U.S. Patent Number 3,080,430 or Smits et al. U.S. Patent Number 4,954,119.

Uchida has been described above. Uchida differs from applicant's invention for the same reasons given in section 4 of this office action. In addition, this reference does not directly teach the use of a propellant with the composition.

Rainaldi and Kung teach the well known use of a propellant with halogenated hydrocarbon type fire extinguishing agents.

This rejection builds on the rejection made in section 4 of this office action. It would have been obvious to one having ordinary skill in the art to add a propellant to the compositions of Uchida using the teachings of Rainaldi and Kung as motivation. In addition, such a combination is very well known in the art. The use of applicant's particular pressure range, is deemed to be within the skill of the ordinary artisan. It is normally not inventive to discover optimum or workable ranges by routine experimentation, In re Aller 105 USPQ 223 1955.

5. Claims 8, and 11-12 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

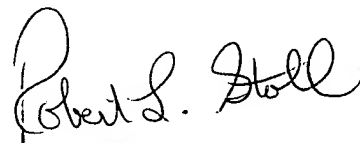
In claim 8 the phrase, "said enclosed area", has no antecedent basis. In the same claim the phrase, "said propane", would be better worded as, "said halogenated propane". This last statement also applies to claim 11. Claim 12 is also being rejected for being dependent upon a rejected claim.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner

Joseph D. Anthony whose telephone number is (703) 308-1934. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0766.

J.D.A.

1/7/91



ROBERT L. STOLL  
SUPERVISORY PRIMARY EXAMINER  
ART UNIT 223